



Air Compressor Maintenance

This two-day course introduces participants to the operating principles of air compressors, their construction and classification, auxiliary components, and maintenance requirements.

I. Principles of Operation

- A. Gas Laws
- B. Volume–Pressure Relationship
- C. Volume–Temperature Relationship

II. Compressors Construction and Classification

- A. Single Acting/Double Acting
- B. Single Multi-Staged
- C. Dynamic
- D. Axial
- E. Centrifugal

III. Rotary Compressors

- A. Positive Displacement Rotary
- B. Sliding Vane Rotary
- C. Lobe Rotary
- D. Liquid Ring Rotary

IV. Reciprocating Compressors

- A. Compression Cycles
- B. Compressor Components
- C. Compressing Element
- D. Lubrication System
- E. Cooling System
- F. Control System
- G. Unloaders/Unloading Valves

V. Compressor Auxiliaries

- A. Silencers
- B. Traps
- C. Receivers
- D. Moisture Separators, Dryers and Filters
- E. Safety Features

VI. Compressor Maintenance

- A. Preventive Maintenance
- B. Corrective Maintenance
- C. Troubleshooting Guide